

Patent Claims

1. Telephone set, telephone receiver or mobile radiotelephone device,
particularly cell phone, for the transmission of optical signals, comprising a first
component that is coupled to at least one first optically conductive body and
5 comprises one or more light-emitting and/or light-receiving elements, and comprising
a second component that is coupled to at least one second optically conductive body
and comprises one or more light-emitting and/or light-receiving elements, whereby
the first and the second optically conductive body are arranged above one another or
layered on top of one another such upon formation of a bus system that they are
10 movable relative to one another and are thereby in optical contact with one another,
whereby the respective, optically conductive body of the bus system comprises a
plurality of interfaces for the input and/or output of optical signals, and whereby the
structure of the respective, optically conductive body is of such a nature that an
optical signal input at one interface can be coupled out at any other interface
15 regardless of the position thereof.
2. Telephone set, telephone receiver or mobile radiotelephone device,
particularly cell phone, according to claim 1, characterized in that the first component
is provided in an upper shell and the second component is provided in a lower shell.
3. Telephone set, telephone receiver or mobile radiotelephone device,
20 particularly cell phone, according to claim 2, characterized in that the upper shell and
the lower shell are only connected to one another by a guide device that allows a
relative motion of the lower shell with respect to the upper shell.
4. Telephone set, telephone receiver or mobile radiotelephone device,
particularly cell phone, according to claim 3, characterized in that the guide device is
25 fashioned such that a displacement, turning or hinging of the upper and lower shell
relative to one another is enabled.
5. Telephone set, telephone receiver or mobile radiotelephone device,
particularly cell phone, according to one of the preceding claims, characterized in that
the bus system is formed by two bodies having a cuboid shape that are cast of an
30 optically conductive material and form a lower shell and an upper shell.

6. Telephone set, telephone receiver or mobile radiotelephone device, particularly cell phone, according to one of the preceding claims, characterized in that the first component comprises a keyboard and a microphone.

5 7. Telephone set, telephone receiver or mobile radiotelephone device, particularly cell phone, according to one of the preceding claims, characterized in that the second component comprises a display and an earphone.

8. Telephone set, telephone receiver or mobile radiotelephone device, particularly cell phone, according to one of the preceding claims, characterized in that the first and the second optical body are movably layered on top of one another or
10 arranged above one another such that these completely overlap in the off and standby condition and partially overlap in the on condition.

9. Telephone set, telephone receiver or mobile radiotelephone device, particularly cell phone, according to one of the preceding claims, characterized in that the first component is arranged essentially inside the first optically conductive body
15 and the second component is arranged essentially within the second optically conductive body.

10. Telephone set, telephone receiver or mobile radiotelephone device, particularly cell phone, according to one of the preceding claims, characterized in that the first component comprises a signal input device and the second component
20 comprises a signal output device.

11. Telephone set, telephone receiver or mobile radiotelephone device, particularly cell phone, according to one of the preceding claims, characterized in that further optically conductive bodies are coupled to the bus system and the optically
25 conductive bodies comprise one or more light-emitting and/or light-receiving elements.

12. Telephone set, telephone receiver or mobile radiotelephone device, particularly cell phone, according to one of the preceding claims, characterized in that the interfaces of the bus system for the input and/or output of optical signals are
situated in the inside or at the exterior surface of the optically conductive bodies.

30 13. Telephone set, telephone receiver or mobile radiotelephone device, particularly cell phone, according to one of the preceding claims, characterized in that

the optically conductive bodies are formed of a material that conducts light, particularly in the infrared range, in the visible range or in the ultraviolet range.

14. Telephone set, telephone receiver or mobile radiotelephone device, particularly cell phone, according to one of the preceding claims, characterized in that, for bidirectional transmission of optical signals, the respective component is equipped both with an opto-electronic component for the conversion of electrical signals into optical signals as well as with an opto-electronic component for the conversion of optical signals into electrical signals.

15. Telephone set, telephone receiver or mobile radiotelephone device, particularly cell phone, according to one of the preceding claims, characterized in that the optical bus system is fashioned such that data, on the one hand, as well as energy, on the other hand, can be transmitted as optical signals.

16. Telephone set, telephone receiver or mobile radiotelephone device, particularly cell phone, according to one of the preceding claims, characterized in that a solar cell is provided for the energy supply of the components with the assistance of the bus system, said solar cell converting a part of the energy situated in the bus system as a result of the transmitted, optical signals into an operating current.